IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): An optical pick-up comprising:

a lens holder for supporting at least one object lens;

a supporting block disposed in a tangential direction perpendicular to a focus direction which is parallel to the optical axis direction of the object lens with a space provided between the supporting block and the lens holder;

supporting arms for connecting the lens holder and the supporting block to movably support the lens holder in the focus direction and in a tracking direction perpendicular to the tangential direction with respect to the supporting block;

a pair of focus coils which are attached to the lens holder and supplied with drive current to move the lens holder in the focus direction;

magnets which are supported by a yoke and face the pair of focus coils respectively; and

a pair of tracking coils which are so attached to the lens holder as to face the magnets and supplied with drive current to move the lens holder in the tracking direction,

wherein,

the pair of focus coils have coil surfaces which are perpendicular to winding axes of the respective focus coils and face the magnets, and are so attached to the lens holder as to face the tangential direction with the object lens put therebetween, the pair of focus coils being shifted in left and right directions respectively away from a virtual axis which is perpendicular to the tracking direction and passes along the optical axis of the object lens, the coil surfaces being directed toward the tangential direction,

the pair of tracking coils have coil surfaces which are perpendicular to winding axes of the respective tracking coils and face the magnets, and are so attached to the lens holder as

to face the tangential direction in parallel to the focus coils with the object lens put therebetween, the pair of tracking coils being shifted in left and right directions respectively away from the virtual axis which is perpendicular to the tracking direction and passes along the optical axis of the object lens, the coil surfaces being directed toward the tangential direction,

the supporting arms are formed from one supporting arms and the other supporting arms which are disposed at both sides of the virtual axis which is perpendicular to the tracking direction and passes along the optical axis of the object lens, the one supporting arms and the other supporting arms being formed from a pair of supporting arms respectively, which are arranged in parallel to the optical axis direction of the object lens,

a crossing point of a first virtual axis and a second virtual axis is formed at a point having a same height as a center of drive on which a drive force is exerted, the drive force being produced by interaction of drive current delivered to the respective tracking coils and magnetic flux from the magnets, and is formed at a point having a same height as a center of gravity of the lens holder including the object lens, the focus coils and the tracking coils, the first virtual axis passing through a portion connecting an upper supporting arm of the pair of the one supporting arms, which is positioned upward in the optical axis direction of the object lens, and the lens holder as well as a portion connecting a lower supporting arm of the pair of the other supporting arms, which is positioned downward in the optical axis direction of the object lens, and the lens holder, the second virtual axis passing through a portion connecting a lower supporting arm of the pair of the one supporting arms, which is positioned downward in the optical axis direction of the object lens, and the lens holder as well as a portion connecting an upper supporting arm of the pair of the other supporting arms, which is positioned upward in the optical axis direction of the object lens, and the lens holder.

Claim 2 (Previously Presented): The optical pick-up as set forth in claim 1,

wherein the focus coil and the tracking coil are attached to one surface of the lens holder, winding centers of the focus coil and the tracking coil being shifted in the optical axis direction of the object lens supported by the lens holder.

Claim 3 (Previously Presented): The optical pick-up as set forth in claim 1,

wherein two object lenses are supported by the lens holder in the tangential direction.

Claim 4 (Previously Presented): The optical pick-up as set forth in claim 1,

wherein the drive center on which a drive force is exerted is shifted away from the center of gravity of the lens holder, to which only the object lens is attached, in the optical axis direction of the object lens, the drive force being produced by interaction of drive current delivered to the respective focus coils and magnetic flux from the magnets.

Claim 5 (Currently Amended): The optical pick-up as set forth in claim 1,

wherein ~~a spacing~~ spacings between the respective magnets, which are so arranged as to face the coil surfaces of the pair of focus coils, and ~~a spacing between~~ the coil ~~surface~~ surfaces of the respective focus ~~coil and the magnet~~ coils are equal to each other in the tangential direction.

Claim 6 (Currently Amended): The optical pick-up as set forth in claim 1,

wherein ~~a spacing~~ spacings between the respective magnets, which are so arranged as to face the coil surfaces of the pair of focus coils, and ~~a spacing between~~ the coil ~~surface~~ surfaces of the respective focus ~~coil and the magnet~~ coils are different from each other in the tangential direction.

Claim 7 (Previously Presented): An optical pick-up comprising:

a lens holder for supporting an object lens;

a supporting block disposed in a tangential direction perpendicular to a focus direction which is parallel to the optical axis direction of the object lens with a space provided between the supporting block and the lens holder;

supporting arms for connecting the lens holder and the supporting block to movably support the lens holder in the focus direction and in a tracking direction perpendicular to the tangential direction with respect to the supporting block;

a pair of focus coils which are attached to the lens holder and supplied with drive current to move the lens holder in the focus direction; and

magnets which are supported by a yoke and face the pair of focus coils respectively, wherein,

the pair of focus coils have coil surfaces which are perpendicular to winding axes of the respective focus coils and face the magnets, and are so attached to the lens holder as to face the tangential direction with the object lens therebetween, the pair of focus coils being shifted in left and right directions respectively away from a virtual axis which is perpendicular to the tracking direction and passes along the optical axis of the object lens, the coil surfaces being directed toward the tangential direction, the numbers of windings of the pair of focus coils being made different from each other.

Claim 8 (Previously Presented): An optical pick-up comprising:

a lens holder for supporting an object lens;

a supporting block disposed in a tangential direction perpendicular to a focus direction which is parallel to the optical axis direction of the object lens with a space provided between the supporting block and the lens holder;

supporting arms for connecting the lens holder and the supporting block to movably support the lens holder in the focus direction and in a tracking direction perpendicular to the tangential direction with respect to the supporting block;

a pair of focus coils which are attached to the lens holder and supplied with drive current to move the lens holder in the focus direction; and

magnets which are supported by a yoke and face the pair of focus coils respectively, wherein,

the pair of focus coils have coil surfaces which are perpendicular to winding axes of the respective focus coils and face the magnets, and are so attached to the lens holder as to face the tangential direction with the object lens put therebetween, the pair of focus coils being shifted in left and right directions respectively away from a virtual axis which is perpendicular to the tracking direction and passes along the optical axis of the object lens, the coil surfaces being directed toward the tangential direction, and

a spacing between the respective magnets, which are so arranged as to face the coil surfaces of the pair of focus coils, and a spacing between the coil surface of the focus coil and the magnet are different from each other in the tangential direction.

Claims 9-10 (Canceled).

Claim 11 (Previously Presented): The optical pick-up as set forth in claim 1, wherein two object lenses are supported by the lens holder in the tangential direction.

Claim 12 (Original): The optical pick-up as set forth in claim 8,

wherein a spacing between the respective magnets, which are so arranged as to face the coil surfaces of the pair of focus coils, and a spacing between the coil surface of the focus coil and the magnet are different from each other in the tangential direction.

Claim 13 (Original): An optical disc apparatus including drive means for holding and rotationally driving an optical disc, and an optical pick-up for irradiating light beams serving to record or reproduce information signals for the optical disc which is rotationally driven by the drive means, and for detecting reflected light beams from the optical disc,

the optical pick-up including:

a lens holder for supporting at least one object lens;

a supporting block disposed in a tangential direction perpendicular to a focus direction which is parallel to the optical axis direction of the object lens with a space provided between the supporting block and the lens holder;

supporting arms for connecting the lens holder and the supporting block to movably support the lens holder in the focus direction and in a tracking direction perpendicular to the tangential direction with respect to the supporting block;

a pair of focus coils which are attached to the lens holder and supplied with drive current to move the lens holder in the focus direction;

magnets which are supported by a yoke and face the pair of focus coils respectively; and

a pair of tracking coils which are so attached to the lens holder as to face the magnets and supplied with drive current to move the lens holder in the tracking direction,

wherein,

the pair of focus coils have coil surfaces which are perpendicular to winding axes of the respective focus coils and face the magnets, and are so attached to the lens holder as to face the tangential direction with the object lens put therebetween, the pair of focus coils being shifted in left and right directions respectively away from a virtual axis perpendicular to the tracking direction and passes along the optical axis of the object lens, the coil surfaces being directed toward the tangential direction,

the pair of tracking coils have coil surfaces which are perpendicular to winding axes of the respective tracking coils and face the magnets, and are so attached to the lens holder as to face the tangential direction in parallel to the focus coils with the object lens put therebetween, the pair of tracking coils being shifted in left and right directions respectively away from the virtual axis which is perpendicular to the tracking direction and passes along the optical axis of the object lens, the coil surfaces being directed toward the tangential direction,

the supporting arms are formed from one supporting arms and the other supporting arms which are disposed at both sides of the virtual axis which is perpendicular to the tracking direction and passes along the optical axis of the object lens, the one supporting arms and the other supporting arms being formed from a pair of supporting arms respectively, which are arranged in parallel to the optical axis direction of the object lens,

a crossing point of a first virtual axis and a second virtual axis is formed at a point having a same height as center of drive on which a drive force is exerted, the drive force being produced by interaction of drive current delivered to the respective tracking coils and magnetic flux from the magnets, and is formed at a point having a same height as a center of gravity of the lens holder including the object lens, the focus coils and the tracking coils, the first virtual axis passing through a portion connecting an upper supporting arm of the pair of the one supporting arms, which is positioned upward in the optical axis direction of the object

lens, and the lens holder as well as a portion connecting a lower supporting arm of the pair of the other supporting arms, which is positioned downward in the optical axis direction of the optical lens, and the lens holder, the second virtual axis passing through a portion connecting a lower supporting arm of the pair of the one supporting arms, which is positioned downward in the optical axis direction of the object lens, and the lens holder as well as a portion connecting an upper supporting arm of the pair of the other supporting arms, which is positioned upward in the optical direction of the object lens, and the lens holder.

Claim 14 (Previously Presented): The optical disc apparatus as set forth in claim 13, wherein two object lenses are supported by the lens holder in the tangential direction.

Claim 15 (Canceled).

Claim 16 (Original): The optical disc apparatus as set forth in claim 13,

wherein a spacing between the respective magnets, which are so arranged as to face the coil surfaces of the pair of focus coils, and a spacing between the coil surface of the focus coil and the magnet are different from each other in the tangential direction.

Claim 17 (Original): The optical disc apparatus as set forth in claim 13,

wherein the numbers of windings of the pair of focus coils is made different from each other.

Claim 18 (Original): The optical disc apparatus as set forth in claim 13,

wherein a spacing between the respective magnets, which are so arranged as to face the coil surfaces of the pair of focus coils, and a spacing between the coil surface of the focus

coils and the magnet are equal to each other in the tangential direction, the numbers of windings of the pair of focus coils being made different from each other.

Claim 19 (Previously Presented): An optical disc apparatus including drive means for holding and rotationally driving an optical disc, and an optical pick-up for irradiating light beams serving to record or reproduce information signals for the optical disc which is rotationally driven by the drive means, and for detecting reflected light beams reflected from the optical disc,

the optical pick-up comprising:

a lens holder for supporting an object lens;

a supporting block disposed in a tangential direction perpendicular to a focus direction which is parallel to the optical axis direction of the object lens with a space provided between the supporting block and the lens holder;

supporting arms for connecting the lens holder and the supporting block to movably support the lens holder in the focus direction and in a tracking direction perpendicular to the tangential direction with respect to the supporting block;

a pair of focus coils which are attached to the lens holder and supplied with drive current to move the lens holder in the focus direction; and

magnets which are supported by a yoke and face the pair of focus coils respectively,

wherein,

the pair of focus coils have coil surfaces which are perpendicular to winding axes of the respective focus coils and face the magnets, and are so attached to the lens holder as to face the tangential direction with the object lens put therebetween, the pair of focus coils being shifted in left and right directions respectively away from a virtual axis which is

perpendicular to the tracking direction and passes along the optical axis of the object lens, the coil surfaces being directed toward the tangential direction, and

a spacing between the respective magnets, which are so arranged as to face the coil surfaces of the pair of focus coils, and a spacing between the coil surface of the focus coil and the magnet are different from each other in the tangential direction.

Claim 20 (Previously Presented): The optical disc apparatus as set forth in claim 18, including drive means for holding and rotationally driving an optical disc, and an optical pick-up for irradiating light beams serving to record or reproduce information signals for the optical disc which is rotationally driven by the drive means and for detecting reflected light beams reflected from the optical disc,

the optical pick-up comprising:

a lens holder for supporting an object lens;

a supporting block disposed in a tangential direction perpendicular to a focus direction which is parallel to the optical axis direction of the object lens with a space provided between the supporting block and the lens holder;

supporting arms for connecting the lens holder and the supporting block to movably support the lens holder in the focus direction and in a tracking direction perpendicular to the tangential direction with respect to the supporting block;

a pair of focus coils which are attached to the lens holder and supplied with drive current to move the lens holder in the focus direction; and

magnets which are supported by a yoke and face the pair of focus coils respectively,

wherein,

the pair of focus coils have coil surfaces which are perpendicular to winding axes of the respective focus coils and face the magnets, and are so attached to the lens holder as to

face the tangential direction with the object lens put therebetween, the pair of focus coils being shifted in left and right directions respectively away from a virtual axis which is perpendicular to the tracking direction and passes along the optical axis of the object lens, the coil surfaces being directed toward the tangential direction, the numbers of windings of the pair of focus coils being made different from each other.